

I. Amendments to the Claims

This listing of claims shall replace all prior versions, and listings, of claims in the application.

Listing of Claims

1-2. (Cancelled)

3. (Currently Amended) A vector comprising:

(a) ~~an isolated DNA molecule consisting of~~ a DNA sequence encoding a full length polypeptide MTBN4 polypeptide, wherein the polypeptide is not encoded by the genome of cells of the Bacille Calmette Guerin (BCG) strain of *Mycobacterium bovis*; and

(b) a regulatory sequence operationally linked to said DNA sequence, said regulatory sequence allowing ~~for~~ expression of the polypeptide encoded by said DNA sequence in a cell.

4. (Currently Amended) A vector comprising:

(a) ~~the DNA molecule of claim 2~~ a DNA sequence encoding a segment of a full length MTBN4 polypeptide, wherein said segment retains an antigenic property of the polypeptide and wherein the segment is not encoded by the genome of the Bacille Calmette Guerin (BCG) strain of *Mycobacterium bovis*; and

(b) a regulatory sequence operationally linked to said DNA sequence, said regulatory sequence allowing ~~for~~ expression of the polypeptide segment encoded by said DNA sequence in a cell.

5. (Original) A cell transformed with the vector of claim 3.

6. (Original) A cell transformed with the vector of claim 4.

7. (Currently Amended) A composition comprising a vector and a pharmaceutically acceptable diluent or filler, wherein the vector comprises ~~a DNA molecule consisting of~~ a DNA sequence encoding a full length polypeptide MTBN4 polypeptide and wherein the polypeptide is not encoded by the genome of the cells of the Bacille Calmette Guerin (BCG) strain of *Mycobacterium bovis*.

8. (Cancelled)

9. (Currently Amended) A composition comprising:

at least two DNA sequences, each encoding a polypeptide of the *Mycobacterium tuberculosis* complex that is not a polypeptide encoded by the genome of cells of the Bacille Calmette Guerin (BCG) strain of *Mycobacterium bovis*, and each said DNA sequences being operationally linked to a regulatory sequence which allows ~~for~~ expression of ~~each~~ said polypeptide in a cell of a vertebrate, wherein at least one of said ~~at least two~~ DNA sequences encodes a full length for polypeptide MTBN4 polypeptide.

10. (Currently Amended) A composition comprising:

at least two DNA sequences, each encoding a polypeptide of the *Mycobacterium tuberculosis* complex that is not a polypeptide encoded by the genome of cells of the Bacille Calmette Guerin (BCG) strain of *Mycobacterium bovis*, and each said DNA sequences being operationally linked to a regulatory sequence which allows ~~for~~ expression of ~~each~~ said polypeptide in a cell of a vertebrate, wherein at least one of said ~~at least two~~ DNA sequences encodes ~~for~~ a segment of a full length polypeptide MTBN4 polypeptide shorter than full-length polypeptide MTBN4, wherein said segment retains ~~the~~ an antigenic property ~~properties~~ of the polypeptide MTBN4 ~~is a DNA molecule of claim 2~~.

11-54. (Cancelled)